

of the base claim and any intervening claims. However, Applicant believes the base claims (1, 19, 22, and 26) are already in allowable form and therefore no amendments have been made.

Claims 8 and 9 stand rejected under 35 U.S.C. § 112, first paragraph for failing to comply with the enablement requirement. Specifically, the Examiner asserts that “the vector determines the duty cycle of the transmission modes that are scheduled” is not sufficiently defined in the specification. In Applicant’s Amendment A, Applicant argued that the solving the equations described on Page 12, Lines 7-14 leads to the determination of the recited duty cycles. The Examiner rejected Applicant’s arguments because “no solution to the indicated equations is offered to determine the duty cycles and then to conclude, ‘the vector determines the duty cycle of the transmission modes that are scheduled.’” Applicant respectfully disagrees and directs the Examiner to the next paragraph in the specification which states “[t]here must be $K+1$ of these equations which are linearly independent. Once we have identified such a set of equations, we solve them by inverting a $(K + 1) \times (K + 1)$ matrix” (Page 12, Lines 19-21). Further, the specification states that by “[u]sing a primal optimization approach, duty cycles of each transmission modes in an optimal scheduling policy can be calculated by formulation of the problem as a linear program.” (Page 13, Lines 23-25). As such, the specification specifies how the references equations are solved and that the resulting calculation determines the recited duty cycles. Accordingly, the specification enables one of ordinary skill in the art to make or use the recited invention. As such, it is respectfully requested that the 35 U.S.C. §112 rejection be withdrawn.

Claims 1-4 and 15 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Attar et al. (U.S. Patent Application No. 2004/0038697). Applicant respectfully traverses this rejection.

In Applicant's Amendment A, Applicant argued that Attar does not disclose or suggest at least the feature of "for each possible transmission mode, identifying a signal to interference plus noise ratio based upon the measured channel parameters" as recited in claim 1. The Examiner rejected this argument, asserting that Attar discloses in paragraph [0040] "the access terminal 104 calculates a quality metric of a forward link for each access point in the access terminal's 104 active set." (emphasis added by the Examiner). The Examiner appears to be reading an "access point" as being equivalent to a transmission mode. Such a reading of Attar is improper. Indeed, an access point is a type of hardware, whereas a transmission mode is a type of operation for a hardware device. A single access point may include more than one transmission mode. In Attar, for a given access point, only a single signal to interference plus noise ratio would be calculated, regardless of how many transmission modes it has. To the contrary, claim 1 recites identifying a signal to interference plus noise ratio for each transmission mode.

The Examiner also cites paragraphs [0042] and [0043] as disclosing the above-recited feature. While these sections refer to a system that operates in a variable rate mode, there is no discussion of calculating a signal to interference plus noise ratio for this or any other possible transmission modes.

Therefore, it is respectfully requested that the 35 U.S.C. § 102(e) rejection of claim 1 be withdrawn. Further, since claims 2-4 and 15 depend from claim 1, it is respectfully requested that corresponding rejections to the dependent claims also be withdrawn.

Claim 19 stands rejected under 35 U.S.C. § 102(e) as being anticipated by Agee et al. (U.S. Patent Application No. 2004/0095907). Applicant respectfully traverses this rejection.

In Applicant's Amendment A, Applicant argued that Agee does not disclose or suggest at least the feature of "determining a set of transmission modes...by minimizing a weighted sum of expended transmission power across the links of said network in view of the channel parameters measured in said step of measuring, such that each link in the network achieves a predetermined minimum data rate" as described in claim 19. The Examiner rejected this argument merely noting that paragraphs [0147], [0148], and [0192] of Agee disclose this feature. Applicant submits the Examiner has misconstrued these cited portions of Agee.

Agee discloses that in a communication system, "the objective of power control...is to minimize the power transmitted at each node in the network." (Paragraph [0147]). Further discussion of this process is described in paragraphs [0148] and [0192]. Notably, Agee describes minimizing power transmitted as the goal or object of power control. However, Agee makes no reference to determining transmission modes by minimizing a particular parameter. To the contrary, claim 19 recites determining transmission modes by minimizing a weighted sum of expended transmission power. Such a feature is not disclosed in Agee. Further, claim 19 recites minimizing a weighted sum of expended transmission power. Agee fails to disclose anything related to a weighted sum of expended transmission power, but instead merely describes power transmitted at a network node. Therefore, for the reasons discussed above, it is respectfully requested that the 35 U.S.C. § 102(e) rejection of claim 19 be withdrawn.

Claims 20, 21, 23, 24 and 26 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Zourntos et al. (U.S. Patent Application No. 2003/0100343). Applicant respectfully traverses this rejection.

In Applicant's Amendment A, Applicant argued Zourntos does not disclose or suggest at least the feature of "setting an initial routing of traffic on said links of the network in order to support the traffic matrix determined in said step of determining a traffic matrix" as recited in claim 20. The Examiner rejected this argument, stating that "Zourntos discloses the features of the claimed limitation on par" and citing paragraphs [0196],[0197], and [0205] (Page 5, Lines 7-8). While these sections of Zourntos describe communication within a node database, there is no discussion of sending an initial routing of traffic as recited in claim 20. Zourntos only discloses providing "communication between backbone and matrix nodes and amongst matrix nodes." (Paragraph [0205]).

Applicant also argued that Zourntos fails to disclose the steps of "computing a sensitivity of links in response to change of data rate" and "iteratively adjusting the routing of traffic using the sensitivity of links so that the weighted sum of expended transmission power across the links of the network is reduced" as recited in a claim 20. The Examiner rejects Applicant's arguments and asserts that the measurement of signal to noise interference ratio in Zourntos teaches this feature. Applicant respectfully disagrees. Indeed, Zourntos discloses maintaining a table, which specifies the required signal to noise interference ratio needed for a particular data rate. (Paragraph [0293]). However, Zourntos fails to disclose anything related to "computing a sensitivity of links in response to change of data rate" as recited in claim 20. Further, since Zourntos fails to disclose such sensitivity links, the reference fails to disclose

adjusting the routing of traffic using these links. Therefore, this feature recited in claim 20, is not taught or suggested by Zourntos.

For all of the above reasons, it is respectfully requested that the 35 U.S.C. § 102(e) rejection of claim 20 be withdrawn. Further, since claims 21, 23, and 24 depend from claim 20, it is respectfully requested that corresponding rejections to the dependent claims also be withdrawn.

Claims 6-9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Attar in view of Agee. Since claims 6-9 depend from claim 1 and the rejection of claim 1 has been overcome, it is respectfully requested that corresponding rejections to the dependent claims also be withdrawn.

Claim 10 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Attar in view of Amadon (U.S. Pat. No. 7,020,147). Since claim 10 depends from claim 1 and the rejection of claim 1 has been overcome, it is respectfully requested that corresponding rejection to claim 10 also be withdrawn.

Claims 12-14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Attar in view of Ogier (U.S. Application No. 2003/0095504). Since claims 12-14 depend from claim 1 and the rejection of claim 1 has been overcome, it is respectfully requested that corresponding rejections to the dependent claims also be withdrawn.

Claim 27 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Zourntos in view of Agee. Since claim 27 depends from claim 26 and the rejection of claim 26 has been overcome, it is respectfully requested that corresponding rejection to claim 27 also be withdrawn.

For all of the above reasons, Applicant requests reconsideration and allowance of the claimed invention. The Examiner should contact Applicant's undersigned attorney if a telephone conference would expedite prosecution.

Respectfully submitted,

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June 11, 2009

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